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☐	L2	L1 and (freunds or cfa or ifa)	4
☐	L3	l1 and douglas	7

END OF SEARCH HISTORY

20040052799. 30 Dec 02. 18 Mar 04. Nucleic acid and amino acid sequences relating to Helicobacter pylori for diagnostics and therapeutics. Smith, Douglas, et al. 424/184.1; A61K039/00 A61K039/38.

☐ 2. WO009921959A2. 28 Oct 98. 06 May 99. HELICOBACTER PYLORI VACCINE FORMULATIONS. ELLIS, RONALD W, et al. C12N00/;.

☐ 3. WO009824475A1. 05 Dec 97. 11 Jun 98. NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO HELICOBACTER PYLORI AND VACCINE COMPOSITIONS THEREOF. SMITH, DOUGLAS, et al. A61K039/00; C12Q001/68 A01N043/04.

☐ 4. WO009818323A1. 28 Oct 97. 07 May 98. NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO HELICOBACTER PYLORI AND VACCINE COMPOSITIONS THEREOF. SMITH, DOUGLAS, et al. A01N043/04; A61K031/70 C12Q001/68.

☐ 5. WO009737044A1. 27 Mar 97. 09 Oct 97. NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO HELICOBACTER PYLORI AND VACCINE COMPOSITIONS THEREOF. SMITH, DOUGLAS, et al. C12Q001/68; A01N043/04 A61K031/70.

☐ 6. WO009719098A1. 15 Nov 96. 29 May 97. NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO HELICOBACTER PYLORI FOR DIAGNOSTICS AND THERAPEUTICS. SMITH, DOUGLAS H. C07H021/04;.

☐ 7. WO009640893A1. 06 Jun 96. 19 Dec 96. NUCLEIC ACID AND AMINO ACID SEQUENCES RELATING TO HELICOBACTER PYLORI FOR DIAGNOSTICS AND THERAPEUTICS. SMITH, DOUGLAS, et al. C12N015/00;.

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*File 348: For important information about IPCR/8 and forthcoming
changes to the IC= index, see HELP NEWSIPCR.
  File 340:CLAIMS(R)/US Patent 1950-06/Jul 27
         (c) 2006 IFI/CLAIMS(R)
*File 340: IPCR/8 classification codes now searchable in 2006 records.
For important information about IC=index changes, see HELP NEWSIPCR.
  File 654:US Pat.Full. 1976-2006/Jul 27
         (c) Format only 2006 Dialog
*File 654: IPCR/8 classification codes now searchable in 2006 records.
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      Set  Items  Description
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             30  55713
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 1/3,KWIC/1     (Item 1 from file: 349)
DIALOG(R)File 349:PCT FULLTEXT
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01236457
COLOURED FUSION PROTEINS
PROTEINES HYBRIDES COLOREES
Patent Applicant/Assignee:
  UNIVERSITY COURT OF THE UNIVERSITY OF DUNDEE, Nethergate, Perth Road,
    Dundee DD1 4HN, GB, GB (Residence), GB (Nationality), (For all
    designated states except: US)
Patent Applicant/Inventor:
  PAINE Mark John Ingraham, 252 Brook Street, Broughty Ferry, Dundee DD5
    2AH, GB, GB (Residence), GB (Nationality), (Designated only for: US)
Legal Representative:
  SZCZUKA Jan Tymoteusz (et al) (agent), Marks & Clerk, 19 Royal Exchange
    Square, Glasgow G1 3AE, GB,
Patent and Priority Information (Country, Number, Date):
  Patent:               WO 200542748 A1 20050512 (WO 0542748)
  Application:          WO 2004GB3543 20040818  (PCT/WO GB04003543)
  Priority Application: GB 200323897 20031011
Designated States:
(All protection types applied unless otherwise stated - for applications
2004+)
  AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK DM
  DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR KZ LC
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  (AP) BW GH GM KE LS MW MZ NA SD SL SZ TZ UG ZM ZW
  (EA) AM AZ BY KG KZ MD RU TJ TM
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	CLAIMS B	(German)	200547	612
	CLAIMS B	(French)	200547	708
	SPEC B	(English)	200547	5196
Total word count - document A				0
Total word count - document B				7129
Total word count - documents A + B				7129

METHODS FOR PRODUCING ENHANCED ANTIGENIC %HELICOBACTER% SP. AND VACCINES COMPRISING SAME

METHODES DE PRODUCTION D'%HELICOBACTER% SP. ANTIGENE AMELIORE ET DE VACCINS LE CONTENANT

...SPECIFICATION Campylobacter jejuni proteins expressed in vivo.

The NCBI Taxonomy browser identifies that Campylobacter pylori and %Helicobacter% pylori are synonomous.

Therefore, objects of the present invention include 1) in vitro culture conditions...

...THE INVENTION

This invention provides defined culture conditions and components incorporated into growth media of %Helicobacter% pylori or %Helicobacter% felis to induce or enhance the presence of virulence factors and other antigens. Preferably, such...

...as passive vaccines.

Therefore, an aspect of the present invention is a method for producing %Helicobacter% pylori or %Helicobacter% felis according to claim 1.

A further aspect of the invention is %Helicobacter% pylori or %Helicobacter% felis according to claim 4.

Another aspect of the invention is a vaccine according to...

...Figure 1 graphically depicts the effect of bile concentration and the growth phase of the %Helicobacter% pylori culture on the adhesiveness of %Helicobacter% pylori NB3-2 cells. H. pylori NB3-2 cells were grown in culture medium containing...

...Figure 2 graphically depicts the effect of bile concentration and the growth phase of the %Helicobacter% pylori culture on the adhesiveness of %Helicobacter% pylori G1-4 cells. H. pylori G1-4 cells were grown in culture medium containing...

...5 DETAILED DESCRIPTION OF THE INVENTION

The methods of the present invention relate to growing %Helicobacter% pylori or %Helicobacter% felis bacteria in vitro in the presence of a combination of certain conditions with certain...

...skilled in the art and maintained at -80(degree)C for future use. Stocks of %Helicobacter% pylori can be prepared by growing the organism in brain heart infusion broth ("BHI"). Bacteria...

...in the art, such as by centrifugation.

In further preferred embodiments, antigenically enhanced cells of %Helicobacter% pylori, preferably of the strain ATCC 49503, NB3-2 or G1-4, are grown in...for production of antigenically enhanced bacteria correlate to enhanced virulence in small animal models. With %Helicobacter% pylori, the %Helicobacter% felis gastric colonization model described by Chen et al. (Lancet, 339:1120-1121, 1992) is...

...present invention are described below.

6 EXAMPLES: METHODS FOR PRODUCING ENHANCED ANTIGENIC BACTERIA

Example 1. %Helicobacter% pylori was added to BHI broth plus 4% bovine calf serum. After inoculation the flasks...

...24 h at 37(degree)C. The cells were harvested as described above.

Example 2. %Helicobacter% pylori was added to BHI broth plus 4% bovine calf serum. After inoculation the flasks...

...when the culture of each strain was in log phase growth.

EXAMPLE: VACCINE EFFICACY OF %HELICOBACTER% GROWN ACCORDING TO THE METHODS OF THE PRESENT INVENTION

Example 4. The protective efficacy of formalin-fixed whole cell %Helicobacter% pylori grown according to the methods of the present invention was determined using the mouse %Helicobacter% felis gastric colonization model described by Chen et al. (Lancet, 339:1120-1121, 1992). %Helicobacter% pylori strain G1-4 was grown as a seed culture for about 22 h at...

...of this inactivated whole cell vaccine orally to 6-8 week old female Balb/c %Helicobacter%-free mice at days 0, 7 and 14 or at days 0, 7 and 21...

...was taken as a positive urease result.

As shown in Table 20, administration of enhanced %Helicobacter% whole cell vaccine prepared using H. pylori strain G1-4 protected animals against an H...

...CLAIMS B1

1. A method of producing %Helicobacter% pylori or %Helicobactor% felis bacteria having enhanced antigenic properties which comprises growing a culture of the %Helicobacter% bacteria in vitro in brain heart infusion broth culture medium supplemented with bovine calf serum...

...immunogenic antigen when compared to the antigenic property of bacteria from a culture of the %Helicobacter% species in brain heart infusion broth supplemented with bovine calf serum.

2. The method according...

...comprise 0.05% glycocholate bile salt.

3. The method according to claim 3, wherein said %Helicobacter% is %Helicobacter% pylori strain, NB3-2 having ATCC Accession No. 55714 or G1-4 having ATCC Accession No. %55713%.

4. A %Helicobacter% pylori or %Helicobacter% felis bacterium having enhanced antigenic properties, which is obtainable by culturing %Helicobacter% bacteria in vitro in brain heart infusion broth culture medium supplemented with bovine calf serum...

...immunogenic antigen when compared to the antigenic property of bacteria from a culture of the %Helicobacter% species in brain heart infusion broth supplemented with bovine calf serum.

5. The %Helicobacter% bacterium according to claim 4, wherein said conditions comprise 0.05% sodium glycocholate.

6. The %Helicobacter% bacterium according to claim 4, wherein said %Helicobacter% is %Helicobacter% pylori strain, NB3-2 having ATCC Accession No. 55714 or G1-4 having ATCC Accession No. %55713%.

7. A vaccine comprising the %Helicobacter% bacterium of claim 4, and further comprising pharmaceutically acceptable carrier or diluent.

8. The vaccine according to claim 7, wherein said %Helicobacter% bacterium is inactivated.

9. The vaccine according to claim 8, wherein said %Helicobacter% bacterium is inactivated by formalin treatment.

10. The vaccine according to claim 7, wherein said...

...comprising an adjuvant.

12. A method for assaying a potential antimicrobial agent comprising, contacting the %Helicobacter% bacterium of claim 4 in vitro with said agent and assaying the bacteriocidal or bacteriostatic effects of said agent on the %Helicobacter% bacterium.

13. A method for detecting a host's antibodies to %Helicobacter% bacteria in an animal or biological sample therefrom, comprising the steps of a) contacting said biological sample with the %Helicobacter% bacterium of claim 4 in vitro and b) screening for antibody binding of the %Helicobacter% bacterium or fragment thereof.
14. A diagnostic immunoassay kit for detecting a host's production of antibodies to %Helicobacter% bacteria or for detecting %Helicobacter% bacteria, comprising the %Helicobacter% bacterium of claim 4.
15. A method for producing anti-%Helicobacter% antibodies in a non-human animal which comprises using an effective amount of an immunogen comprising the %Helicobacter% bacterium of claim 4, wherein the anti-%Helicobacter% antibodies bind said %Helicobacter% bacterium or a component thereof.
16. An immunogen comprising the %Helicobacter% bacterium of claim 4, for stimulating an immune response in an animal wherein said immunogen is to be administered to the animal and said immune response prevents, attenuates or cures %Helicobacter% infections or diseases in the animal.

...CLAIMS B1

1. Eine Methode zur Produktion der Bakterien %Helicobacter% pylori oder %Helicobacter% felis mit verstarkten Antigeneigenschaften, umfassend das Anlegen einer in vitro-Kultur der %Helicobacter%-Bakterien in Brain Heart Infusion Broth Kulturmedium, das mit bovinem Kalberserum aufgestockt wurde, unter einer...

...Vergleich mit der antigenen Eigenschaft von Bakterien einer mit bovinem Kalberserum aufgestockten Kultur der Spezies %Helicobacter% in Brain Heart Infusion Broth eine hohere Stufe eines immunogenen Antigens oder eines neuen immunogenen...

...Bedingungen 0,05% Gallen-Glykocholat umfassen.

3. Die Methode gemas Anspruch 3, worin der genannte %Helicobacter% der Stamm %Helicobacter% pylori ist und wobei NB3-2 die ATCC-Zugriffs-Nr. 55714 oder G1-4 die ATCC-Zugriffs-Nr. %55713% hat.
4. Ein %Helicobacter% pylori- oder %Helicobacter% felis-Bakterium mit verstarkten antigenen Eigenschaften, das man produzieren kann, indem in vitro Kulturen von %Helicobacter%-Bakterien in Brain Heart Infusion Broth Kulturmedium, das mit bovinem Kalberserum aufgestockt wurde, unter einer...

...Vergleich mit der antigenen Eigenschaft von Bakterien einer mit bovinem Kalberserum aufgestockten Kultur der Spezies %Helicobacter% in Brain Heart Infusion Broth eine hohere Stufe eines immunogenen Antigens oder eines neuen immunogenen Antigens darstellt.

5. Das %Helicobacter%-Bakterium gemas Anspruch 4, worin die genannten Bedingungen 0,05% Natriumglykocholat umfassen.
6. Das %Helicobacter%-Bakterium gemas Anspruch 4, worin der genannte %Helicobacter% der Stamm %Helicobacter% pylori ist und wobei NB3-2 die ATCC-Zugriffs-Nr. 55714 oder G1-4 die ATCC-Zugriffs-Nr. %55713% hat.
7. Ein Impfstoff, umfassend das %Helicobacter%-Bakterium gemas Anspruch 4 und weiterhin umfassend einen pharmazeutisch akzeptablen Tragerstoff oder Diluenten.
8. Der Impfstoff gemas Anspruch 7, worin das genannte %Helicobacter% -Bakterium inaktiviert wurde.
9. Der Impfstoff gemas Anspruch 8, worin das besagte %Helicobacter% -Bakterium durch Formalin-Behandlung inaktiviert wurde.
10. Der Impfstoff gemas Anspruch 7, wobei sich der...

...12. Eine Assay-Methode fur einen potentiellen antimikrobiellen Wirkstoff , umfassend den in vitro-Kontakt des %Helicobacter%-Bakteriums gemas Anspruch 4 mit dem genannten Wirkstoff und die Ermittlung der bakteriziden und bakteriostatischen Effekte des besagten Wirkstoffs auf das %Helicobacter%-Bakterium.
13. Eine Methode zur Detektion der Wirtsantikorper gegen %Helicobacter%

-Bakterien in Proben von Lebewesen oder in biologischen Proben mit diesen Bakterien, umfassend die Schritte a) der in vitro-Zugabe der biologischen Probe zum %Helicobacter%-Bakterium gemas Anspruch 4 und b) des Screenings auf Antikorperbindung des %Helicobacter%-Bakteriums oder eines Fragments davon.

14. Ein diagnostischer Immunoassay-Kit zur Detektion der Produktion von Antikorpern gegen %Helicobacter%-Bakterien durch einen Wirt oder zur Detektion von %Helicobacter%-Bakterien, welche das %Helicobacter% -Bakterium gemas Anspruch 4 umfassen.
15. Eine Methode zur Produktion von anti-%Helicobacter%-Antikorpern beim Tier, umfassend den Gebrauch einer effektiven Menge eines Immunogens, umfassend das %Helicobacter%-Bakterium gemas Anspruch 4, worin die anti-%Helicobacter%-Antikorper an das genannte %Helicobacter% -Bakterium oder eine seiner Komponenten binden.
16. Ein Immunogen, umfassend das %Helicobacter%-Bakterium gemas Anspruch 4, zur Stimulation einer Immunreaktion bei Lebewesen, wobei das genannte Immunogen dem Lebewesen verabreicht werden muss und die genannte Immunreaktion bei diesem Lebewesen %Helicobacter% -Infektionen oder -Krankheiten verhindert, schwacht oder heilt.

...CLAIMS B1

1. Une methode de production de bacteries %Helicobacter% pylori ou %Helicobacter% felis ayant des proprietes antigeniques accrues qui consiste en une culture des bacteries %Helicobacter% in vitro dans un milieu de culture d'infusion de coeur-cervelle enrichi de serum...

...antigene immunogene compare aux proprietes antigeniques des bacteries issues d'une culture de l'espece %Helicobacter% dans un milieu de culture d'infusion de coeur-cervelle enrichi de serum de veau...

...sel biliaire glycocholate.

3. La methode decrite dans la revendication n(degree) 3 ou ledit %Helicobacter% est de la souche %Helicobacter% pylori, NB3-2 ayant le numero d'accession ATCC 55714 ou G1-4 ayant le numero d'accession %55713%.
4. Une bacterie %Helicobacter% pylori ou %Helicobacter% felis ayant des proprietes antigeniques accrues qui peut etre obtenue par une culture in vitro de la bacterie %Helicobacter% dans un milieu de culture d'infusion de coeur-cervelle enrichi de serum de veau...

...un nouvel antigene immunogene compare aux proprietes antigeniques de bacteries issues d'une culture de %Helicobacter% dans un milieu de culture d'infusion de coeur-cervelle enrichi de serum de veau.

5. La bacterie %Helicobacter% selon la revendication n(degree) 4 ou les conditions comprennent 0,05 % de glycocholate de sodium.
6. La bacterie %Helicobacter% selon la revendication n(degree) 4 ou ledit %Helicobacter% est de la souche %Helicobacter% pylori, NB3-2 ayant le numero d'accession ATCC 55714 ou G1-4 ayant le numero d'accession %55713%.
7. Un vaccin comprenant la bacterie %Helicobacter% de la revendication n(degree) 4 et comprenant egalement un support ou diluant acceptable du...

...vue pharmaceutique.

8. Le vaccin selon la revendication n(degree) 7 dans lequel ladite bacterie %Helicobacter% est inactivee.
9. Le vaccin selon la revendication n(degree) 8 dans lequel ladite bacterie %Helicobacter% est inactivee par un traitement au formaldehyde.
10. Le vaccin selon la revendication n(degree...

...methode pour analyser un agent antimicrobien potentiel comprenant, la mise en contact de la bacterie %Helicobacter% de la revendication n(degree) 4 in vitro avec ledit agent et l'analyse des effets bactericides ou bacteriostatiques dudit agent sur la bacterie

%Helicobacter%.

13. Une methode pour detecter les anticorps d'un hote anti bacteries %Helicobacter% chez un animal ou un prelevement biologique de celui-ci, comprenant les etapes suivantes : a) la mise en contact dudit prelevement biologique avec la bacterie %Helicobacter% de la revendication n(degree) 4 in vitro et b) la recherche de la liaison de l'anticorps a la bacterie %Helicobacter% ou un fragment de celle-ci.
14. Un kit de dosage immunologique diagnostic pour detecter la production d'anticorps d'un hote anti bacteries %Helicobacter% ou pour detecter les bacteries %Helicobacter%, comportant la bacterie %Helicobacter% de la revendication n(degree) 4.
15. Une methode de production d'anticorps anti-%Helicobacter% chez un animal non humain qui comprend l'utilisation d'une quantite efficace d'un immunogene comportant la bacterie %Helicobacter% de la revendication n(degree) 4, dans lequel les anticorps anti-%Helicobacter% se fixent sur la bacterie %Helicobacter% ou sur un fragment de celle-ci.
16. Un immunogene comprenant la bacterie %Helicobacter% de la revendication n(degree) 4, pour stimuler une reponse immunitaire chez un animal ou...

...administre a l'animal et ladite reponse immunitaire previent, attenue ou guerit les infections a %Helicobacter% ou les maladies chez l'animal.

1/3,KWIC/3 (Item 1 from file: 340)
DIALOG(R)File 340:CLAIMS(R)/US Patent

3140596 3959399
CM/VACCINES COMPRISING ENHANCED ANTIGENIC %HELICOBACTER% SPP.
Inventors: Frey Steven Michael (US); Pace John Lee (US); Walker Richard Ives (US)
Assignee: Antex Biologics Inc
Assignee Code: 36041
(REASSIGNED - See file 123 for details)
Attorney, Agent or Firm: Pennie & Edmonds

	Publication Number	Kind	Date	Application Number	Date
	US 5897475	A	19990427	US 95538544	19951003
	(Cited in 002 later patents)				
Cont.-in-part of:	Abandoned			US 94318409	19941005
Priority Applic:				US 95538544	19951003
				US 94318409	19941005

Calculated Expiration: 20141005

VACCINES COMPRISING ENHANCED ANTIGENIC %HELICOBACTER% SPP.
Abstract: ...containing the enteric bacteria. Specifically, a whole enteric bacteria or components thereof are provided by %Helicobacter% species. Also there are other enteric bacteria which are useful for the disclosed invention; such...

Exemplary Claim:

D R A W I N G

1. A vaccine comprising a %Helicobacter% bacterium having an enhanced antigenic property or an immunogenic fragment of said bacterium, which bacterium is harvested from a liquid culture of a %Helicobacter% species grown in vitro in a culture medium with a combination of conditions comprising: a...

...to about 100 mu M of ethylene-bis(oxyethylenenitrilo)-tetraacetic acid/acetoxymethyl ester, wherein said %Helicobacter% culture is at about early log phase, between early log phase and stationary phase, or ...

...host cell when compared to the adherence ability of bacteria from a culture of the %Helicobacter% species grown in brain heart infusion broth supplemented with bovine calf serum.

Non-exemplary Claims:

2. A vaccine comprising a %Helicobacter% bacterium having an enhanced antigenic property or an immunogenic fragment of said bacterium, which bacterium is harvested from a liquid culture of a %Helicobacter% species grown in vitro in a culture medium with a combination of conditions comprising: a...

...20% CO sub 2 with about 70% to about 85% N sub 2, wherein said %Helicobacter% culture is at about early log phase, between early log phase and stationary phase, or...

...host cell when compared to the adherence ability of bacteria from a culture of the %Helicobacter% species grown in brain heart infusion broth supplemented with bovine calf serum...

...4. The vaccine according to claim 1 or 2, wherein said %Helicobacter% bacterium is inactivated...

...5. The vaccine according to claim 4, wherein said %Helicobacter% bacterium is inactivated by formalin treatment...

...8. The vaccine according to claim 1, wherein the %Helicobacter% species is %Helicobacter% pylori or %Helicobacter% felis...

...9. The vaccine according to claim 8, wherein the %Helicobacter% species is %Helicobacter% pylori strain NB3-2 (ATCC 55714) or G1-4 (ATCC %55713%).
...

...11. The vaccine according to claim 10, wherein the %Helicobacter% species is %Helicobacter% pylori or %Helicobacter% felis.

1/3,KWIC/4 (Item 1 from file: 654)
DIALOG(R)File 654:US Pat.Full.

4138424
Derwent Accession: 1996-209839
Utility
REASSIGNED
CM/ Vaccines comprising enhanced antigenic %helicobacter% spp.
Inventor: Pace, John Lee, Germantown, MD
Walker, Richard Ives, Gaithersburg, MD
Frey, Steven Michael, Germantown, MD
Assignee: Antex Biologics, Inc.(02), Gaithersburg, MD
Antex Biologics Inc (Code: 36041)
Examiner: Wityshyn, Michael G. (Art Unit: 188)
Assistant Examiner: Ware, Deborah
Law Firm: Pennie & Edmonds

	Publication Number	Kind	Date	Application Number	Filing Date
Main Patent	US 5897475	A	19990427	US 95538544	19951003
CIP	Abandoned			US 94318409	19941005

Fulltext Word Count: 15997

Vaccines comprising enhanced antigenic %helicobacter% spp.

Abstract:
...containing the enteric bacteria. Specifically, a whole enteric bacteria or components thereof are provided by %Helicobacter% species. Also there are other enteric bacteria which are useful for the disclosed invention; such...

Summary of the Invention:
...method for producing enteric bacteria selected from the group consisting of Campylobacter spp., Yersinia spp., %Helicobacter% spp., Gastrospirillum spp., Bacteroides spp., Klebsiella spp., Enterobacter spp., Salmonella spp., Shigella spp., Aeromonas spp...

...the invention is enteric bacteria selected from the group consisting of Campylobacter spp., Yersinia spp., %Helicobacter% spp., Gastrospirillum spp., Bacteroides spp., Klebsiella spp., Enterobacter spp., Salmonella spp., Shigella spp., Aeromonas spp...

...enteric bacteria or components thereof, selected from the group consisting of: Campylobacter spp., Yersinia spp., %Helicobacter% spp., Gastrospirillum spp., Bacteroides spp., Klebsiella spp., Enterobacter spp., Salmonella spp., Shigella spp., Aeromonas spp...

...bacteria having enhanced antigenic properties selected from the group consisting of: Campylobacter spp., Yersinia spp., %Helicobacter% spp., Gastrospirillum spp., Bacteroides spp., Klebsiella spp., Enterobacter spp., Salmonella spp., Shigella spp., Aeromonas spp...
...invention having enhanced antigenic properties selected from the group consisting of: Campylobacter spp., Yersinia spp., %Helicobacter% spp., Gastrospirillum spp., Bacteroides spp., Klebsiella spp., Enterobacter spp., Salmonella spp., Shigella spp., Aeromonas spp...

...bacteria having enhanced antigenic properties selected from the group consisting of: Campylobacter spp., Yersinia spp., %Helicobacter% spp., Gastrospirillum spp., Bacteroides spp., Klebsiella spp., Enterobacter spp., Salmonella spp., Shigella spp., Aeromonas spp...

...enterocolitica, Yersinia pestis, Yersinia pseudotuberculosis, Escherichia coli, Shigella flexneri, Shigella sonnei, Shigella dysenteriae, Shigella boydii, %Helicobacter% pylori, %Helicobacter% felis, Gastrospirillum hominus, Vibrio cholerae, Vibrio parahaemolyticus, Vibrio vulnificus, Bacteroides fragilis, Clostridium difficile, Salmonella typhimurium...

Description of the Drawings:
...FIG. 12 graphically depicts the effect of bile concentration and the growth phase of the %Helicobacter% pylori culture on the adhesiveness of %Helicobacter% pylori NB3-2 cells. H. pylori NB3-2 cells were grown in culture medium containing...

...FIG. 13 graphically depicts the effect of bile concentration and the growth phase of the %Helicobacter% pylori culture on the adhesiveness of %Helicobacter% pylori G1-4 cells. H. pylori G1-4 cells were grown in culture medium containing...

Description of the Invention:
...the present invention, enteric bacterial cultures selected from the group of Campylobacter spp., Yersinia spp., %Helicobacter% spp., Gastrospirillum spp., Bacteroides spp., Klebsiella spp., Enterobacter spp., Salmonella spp., Shigella spp., aeromonas spp...

...N[sub]2 (microaerophilic condition, "MC") for 20 h. Stocks of Escherichia coli, Salmonella typhimurium, %Helicobacter% pylori and Shigella flexneri can be prepared by growing the organism in brain heart infusion...

...In further preferred embodiments, antigenically enhanced cells of %Helicobacter% pylori, preferably of the strain ATCC 49503, NB3-2 or G1-4, are grown in...

...et al. (see infra Section 13) is used to assess virulence and vaccine efficacy. With %Helicobacter% pylori, the %Helicobacter% felis gastric colonization model described by Chen et al. (Lancet, 339:1120-1121, 1992) is...%Helicobacter% pylori was added to BHI broth plus 4% bovine calf serum. After inoculation the flasks...
...%Helicobacter% pylori was added to BHI broth plus 4% bovine calf serum. After inoculation the flasks...

...the bacteria were prepared as follows. For slow growing enteric bacteria such as Campylobacter and %Helicobacter% the bacterial culture density was diluted to an OD[sub]625 of 0.1 with...

...enhancement or alteration by bile or bile salts such as DOC (e.g., Campylobacter, Shigella, %Helicobacter%) have genes homologous to low calcium response (lcr) genes from Yersinia. The lcr locus is...Vaccine Efficacy of %Helicobacter% Grown According to the Methods of the Present Invention...

...The protective efficacy of formalin-fixed whole cell %Helicobacter% pylori grown according to the methods of the present invention was determined using the mouse %Helicobacter% felis gastric colonization model described by Chen et al. (Lancet, 339:1120-1121, 1992). %Helicobacter% pylori strain G1-4 was grown as a seed culture for about 22 h at...

...of this inactivated whole cell vaccine orally to 6-8 week old female Balb/c %Helicobacter%-free mice at days 0, 7 and 14 or at days 0, 7 and 21...

...As shown in Table 20, administration of enhanced %Helicobacter% whole cell vaccine prepared using H. pylori strain G1-4 protected animals against an H...

Exemplary or Independent Claim(s):

1. A vaccine comprising a %Helicobacter% bacterium having an enhanced antigenic property or an immunogenic fragment of said bacterium, which bacterium is harvested from a liquid culture of a %Helicobacter% species grown in vitro in a culture medium with a combination of conditions comprising...

...wherein said %Helicobacter% culture is at about early log phase, between early log phase and stationary phase, or...

...host cell when compared to the adherence ability of bacteria from a culture of the %Helicobacter% species grown in brain heart infusion broth supplemented with bovine calf serum.

Non-exemplary or Dependent Claim(s):

2. A vaccine comprising a %Helicobacter% bacterium having an enhanced antigenic property or an immunogenic fragment of said bacterium, which bacterium is harvested from a liquid culture of a %Helicobacter% species grown in vitro in a culture medium with a combination of conditions comprising...
...wherein said %Helicobacter% culture is at about early log phase, between

early log phase and stationary phase, or...

...host cell when compared to the adherence ability of bacteria from a culture of the %Helicobacter% species grown in brain heart infusion broth supplemented with bovine calf serum...

...4. The vaccine according to claim 1 or 2, wherein said %Helicobacter% bacterium is inactivated...

...5. The vaccine according to claim 4, wherein said %Helicobacter% bacterium is inactivated by formalin treatment...

...8. The vaccine according to claim 1, wherein the %Helicobacter% species is %Helicobacter% pylori or %Helicobacter% felis...

...9. The vaccine according to claim 8, wherein the %Helicobacter% species is %Helicobacter% pylori strain NB3-2 (ATCC 55714) or G1-4 (ATCC %55713%).

...

...11. The vaccine according to claim 10, wherein the %Helicobacter% species is %Helicobacter% pylori or %Helicobacter% felis.

?

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*** DIALINDEX search results display in an abbreviated ***
*** format unless you enter the SET DETAIL ON command. ***
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or hpylori? or h-pylori?)
   You have 294 files in your file list.
   (To see banners, use SHOW FILES command)
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Your SELECT statement is:
   s ((g1 (n) 4) or g1-4) (25n) (helicobact? or pylori or pyloris or
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or hpylori? or h-pylori?)

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       Examined 100 files
Processing
       Examined 150 files
Processing
Processing
Processing
       Examined 200 files
Processing
       Examined 250 files
Processing
Processing
Processing

   No files have one or more items; file list includes 294 files.

? logoff hold
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? sf allscience
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? s 55713 and helicobact?

Your SELECT statement is:
   s 55713 and helicobact?

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>>>No valid files specified
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>>>Unable to open file; SELECT not performed on this file.
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              1   348: EUROPEAN PATENTS_1978-2006/ 200630
              1   349: PCT FULLTEXT_1979-2006/UB=20060727,UT=20060720
       Examined 200 files
       Examined 250 files
              1   654: US Pat.Full._1976-2006/Jul 27

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Your last SELECT statement was:
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Ref        Items   File
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N2             1   348: EUROPEAN PATENTS_1978-2006/ 200630
N3             1   349: PCT FULLTEXT_1979-2006/UB=20060727,UT=20060720
N4             1   654: US Pat.Full._1976-2006/Jul 27
N5             0     2: INSPEC_1898-2006/Jul W4
N6             0     5: Biosis Previews(R)_1969-2006/Jul W4
N7             0     6: NTIS_1964-2006/Jul W3
N8             0     8: Ei Compendex(R)_1970-2006/Jul W4
N9             0     9: Business & Industry(R)_Jul/1994-2006/Jul 28
N10            0    10: AGRICOLA_70-2006/May
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changes to the IC= index, see HELP NEWSIPCR.
  File 348:EUROPEAN PATENTS 1978-2006/ 200630
        (c) 2006 European Patent Office
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DERWENT-ACC-NO: 1996-209839
DERWENT-WEEK: 200643

TITLE: Prodn. of antigenically enhanced Helicobacter species - using cultures which simulate in vivo conditions, for prepn. of antibodies and vaccines

INVENTOR: FREY, S M; PACE, J L ; WALKER, R I

PATENT-ASSIGNEE: ANTEX BIOLOGICS INC (ANTEN), MICROCARB INC (MICRN), EMERGENT IMMUNOSOLUTIONS INC (EMERN)

PRIORITY-DATA: 1995US-0538544 (October 3, 1995), 1994US-0318409 (October 5, 1994), 1997US-0865147 (May 29, 1997), 1995US-0538543 (October 3, 1995), 1995US-0538545 (October 3, 1995)

Search Selected | Search ALL | Clear

PATENT-FAMILY:

PUB-NO	PUB-DATE	LANGUAGE	PAGES	MAIN-IPC
ES 2255064 T3	June 16, 2006		000	C12N001/00
WO 9611257 A1	April 18, 1996	E	089	C12N001/00
AU 9539527 A	May 2, 1996		000	C12N001/00
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CZ 9701042 A3	November 12, 1997		000	C12N001/00
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☐ EP 792347 B1	November 23, 2005	E	000	C12N001/00
☐ DE 69534635 E	December 29, 2005		000	C12N001/00

DESIGNATED-STATES: AL AM AU BB BG BR BY CA CN CZ EE FI GE HU IS JP KG KP KR KZ LK LR LT LV MD MG MK MN MX NO NZ PL RO RU SG SI SK TJ TM TT UA UZ VN AT BE CH DE DK ES FR GB GR IE IT KE LU MC MW NL OA PT SD SE SZ UG AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE SI AT BE CH DE DK ES FR GB GR IE IT LI LU MC NL PT SE SI

CITED-DOCUMENTS:6.Jnl.Ref

APPLICATION-DATA:

PUB-NO	APPL-DATE	APPL-NO	DESCRIPTOR
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DE 69534635E	October 4, 1995	1995WO-US12986	

DE 69534635E	EP 792347	Based on
DE 69534635E	WO 9611257	Based on

73509 A1 INT-CL (IPC): A01N 63/00; A61K 39/00; A61K 39/02; A61K 39/106; A61K 39/38; A61K 45/00; C12N 0/00; C12N 1/00; C12N 1/12; C12N 1/20; C12Q 1/02; G01N 33/15; G01N 33/531; G01N 33/569; C12N 1/20; C12R 1/01

RELATED-ACC-NO: 1996-209840

ABSTRACTED-PUB-NO: US 5897475A
BASIC-ABSTRACT:

Prodn. of Helicobacter bacteria having enhanced antigenic properties comprises growing a culture of the bacteria in vitro under the following conditions, either:(a) 0.05-3% bile or 0.0-25 to 0.6% of one or more bile acids or salts;(b) temp. of 30-42 deg. C;(c) in air or microaerophillic conditions comprising:(i) 5-20% carbon dioxide, 80-95% air, or(ii) 5-10% oxygen, 10-20% CO2, 70-85% nitrogen, and(d) divalent cation chelator selected from 0-100 mu M BAPTA/AM, 0-10 mM EGTA or 0-100 mu M EGTA/AM, or: (a) divalent cation chelator selected from 1.0-25 mu M BAPTA/AM, 0.5-10 mM EGTA and 1.0-100 mu M EGTA/AM, and (b) (b) and (c) as above. The bacteria is cultured for sufficient time to reach a growth phase at approx early log phase, between early log phase and stationary phase, or at stationary phase.

USE - The bacteria can be used to produce protective vaccines, for diagnostic purposes, e.g. for the prodn. of antibodies and detection of pathogenic enteric bacteria, or to produce antibiotics. The antibodies induced by the bacteria may be used as passive vaccines.

ADVANTAGE - The bacteria produced are antigenically enhanced with phenotypic changes such as increased total protein/cell, new or increased individual proteins, altered or increased surface carbohydrates, altered lipopolysaccharides, increased adhesive ability, increased invasive ability and/or increased intracellular swarming. These enhanced bacteria induce immune responses the are cross-protective against a broader range of strains or serotypes of the same species than those induced by the same bacteria cultured under conventional conditions. The methods are adaptable to practical scale-up fermentations for commercial use.

ABSTRACTED-PUB-NO: US 6051416A
EQUIVALENT-ABSTRACTS:

Prodn. of Helicobacter bacteria having enhanced antigenic properties comprises growing a culture of the bacteria in vitro under the following conditions, either:(a) 0.05-3% bile or 0.0-25 to 0.6% of one or more bile acids or salts;(b) temp. of 30-42 deg. C;(c) in air or microaerophillic conditions comprising:(i) 5-20% carbon dioxide, 80-95% air, or(ii) 5-10% oxygen, 10-20% CO2, 70-85% nitrogen, and(d) divalent cation chelator selected from 0-100 mu M BAPTA/AM, 0-10 mM EGTA or 0-100 mu M EGTA/AM, or: (a) divalent cation chelator selected from 1.0-25 mu M BAPTA/AM, 0.5-10 mM EGTA and 1.0-100 mu M EGTA/AM, and (b) (b) and (c) as above. The bacteria is cultured for sufficient time to reach a growth phase at approx early log phase, between early log phase and stationary phase, or at stationary phase.

USE - The bacteria can be used to produce protective vaccines, for diagnostic purposes, e.g. for the prodn. of antibodies and detection of pathogenic enteric bacteria, or to produce antibiotics. The antibodies induced by the bacteria may be used as passive vaccines.

ADVANTAGE - The bacteria produced are antigenically enhanced with phenotypic changes such as increased total protein/cell, new or increased individual proteins, altered or increased surface carbohydrates, altered lipopolysaccharides, increased adhesive ability, increased invasive ability and/or increased intracellular swarming. These enhanced bacteria induce immune responses the are cross-protective against a broader range of strains or serotypes of the same species than those induced by the same bacteria cultured under conventional conditions. The methods are adaptable to practical scale-up fermentations for commercial use.

Prodn. of Helicobacter bacteria having enhanced antigenic properties comprises growing a culture of the bacteria in vitro under the following conditions, either:(a) 0.05-3% bile or 0.0-25 to 0.6% of one or more bile acids or salts;(b) temp. of 30-42 deg. C;(c) in air or microaerophillic conditions comprising:(i) 5-20% carbon dioxide, 80-95% air, or(ii) 5-10% oxygen, 10-20% CO2, 70-85% nitrogen, and(d) divalent cation chelator selected from 0-100 mu M BAPTA/AM, 0-10 mM EGTA or 0-100 mu M EGTA/AM, or: (a) divalent cation chelator selected from 1.0-25 mu M BAPTA/AM, 0.5-10 mM EGTA and 1.0-100 mu M EGTA/AM, and (b) (b) and (c) as above. The bacteria is cultured for sufficient time to reach a growth phase at approx early log phase, between early log phase and stationary phase, or at stationary phase.

USE - The bacteria can be used to produce protective vaccines, for diagnostic purposes, e.g. for the prodn. of antibodies and detection of pathogenic enteric bacteria, or to produce antibiotics. The antibodies induced by the bacteria may be used as passive vaccines.

ADVANTAGE - The bacteria produced are antigenically enhanced with phenotypic changes such as increased total protein/cell, new or increased individual proteins, altered or increased surface carbohydrates, altered lipopolysaccharides, increased adhesive ability, increased invasive ability and/or increased intracellular swarming. These enhanced bacteria induce immune responses the are cross-protective against a broader range of strains or serotypes of the same species than those induced by the same bacteria cultured under conventional conditions. The methods are adaptable to practical scale-up fermentations for commercial use.

WO 9611257A

CHOSEN-DRAWING: Dwg.12,13/

DERWENT-CLASS: B04 C07 D16 S03
CPI-CODES: B01-D01; B04-B04D4; B04-F10A; B04-G01; B11-C07A; B12-K04A4; B14-A01A; D05-A01A4; D05-A01B; D05-C02; D05-H04; D05-H07; D05-H09; D05-H11A1;
EPI-CODES: S03-E14H4;